

Proposed Method for Providing Credit Toward Energy Efficiency Goals for Cost-Effective Projects Where Source Energy Use Declines But Site Energy Use Increases

The *Guidance for Providing Credit Toward Energy Efficiency Goals for Cost-Effective Projects Where Source Energy Use Declines But Site Energy Use Increases* released in April 2000 leaves unresolved the issue of how the credit would be applied. Because of the complexity of this issue (essentially substituting an apple or two in an accounting of mostly oranges), the language from the *Guidance* (below) basically delays addressing the issue until agencies begin to submit data on this:

“Submit this project compilation worksheet to DOE. To remove the perception that there is any disincentive to implementing these types of projects, DOE will work with the Office of Management and Budget to ensure that appropriate credit is given on the agency’s scorecard. Credit will be applied to the component of the scorecard dealing with the energy efficiency improvement goals of Section 202 or 203, as appropriate.”

To-date, no agency has submitted the worksheet for crediting source energy reductions when site energy increases. With the increased emphasis on combined heat and power projects, agencies may begin submitting data for credit this year. Therefore, the following approach is proposed requiring minor modifications to the Agency Project Compilation Worksheet.

In projects where source-measured energy consumption is reduced, but site-delivered energy increases, the site Btu increase will be subtracted the agency’s total energy use along with an additional site Btu reduction equivalent to the percentage of source-measured energy saved by the projects. In other words, the source energy reduction credit is the sum of the site energy increase and the percentage reduction in source energy applied to site energy base case.

When the credit is subtracted from the agency’s overall site energy consumption, the agency is not penalized for the site energy increase and also receives site energy reduction credit. The credit can be applied to the agency’s goal performance metric in the same way green power purchases are credited; that is, by subtracting that energy from the agency’s total site Btu before calculating the Btu-per-gross-square-foot figure.

Agencies will also need to submit their worksheets for each year of the projects' lives, so they can continue to get credit for projects accomplished in previous years.

The worksheets for calculating the credit follow.

Agencies should use the following worksheet for each applicable project in order to document source energy reductions and site energy increases:

PROJECT WORKSHEET			EXAMPLE:
Base Case (pre-project implementation)			
Line 1	Annual Source Energy Used	_____ MMBtu	475 MMBtu
Line 2	Annual Site Energy Used	_____ MMBtu	128 MMBtu
New Project			
Line 3	Annual Source Energy Used	_____ MMBtu	380 MMBtu
Line 4	Annual Site Energy Used	_____ MMBtu	233 MMBtu
<i>Subtract Line 3 from Line 1, this is:</i>			
Line 5	Annual Source Energy Saved	_____ MMBtu	95 MMBtu
<i>Subtract Line 2 from Line 4, this is:</i>			
Line 6	Annual Site Energy Increase	_____ MMBtu	105 MMBtu

Once this worksheet is completed for each applicable project, compile the data from Lines 1, 2, 5 and 6 for each project into the format below (as shown in the example):

AGENCY COMPILATION WORKSHEET				
Name of Project	Annual Source Energy Base Case	Annual Source Energy Saved	Annual Site Energy Base Case	Annual Site Energy Increase
1)	_____ MMBtu	_____ MMBtu	_____ MMBtu	_____ MMBtu
2)	_____ MMBtu	_____ MMBtu	_____ MMBtu	_____ MMBtu
3)	_____ MMBtu	_____ MMBtu	_____ MMBtu	_____ MMBtu
Total	_____ MMBtu	_____ MMBtu	_____ MMBtu	_____ MMBtu
Source Energy Percentage Decrease from Base Case: _____ %				
(Total Annual Site Energy Base Case × Source Energy Percentage Decrease) Site Energy Reduction Credit:				_____ MMBtu
(Total Annual Site Energy Increase + Site Energy Reduction Credit) Goal Credit for projects where source energy use declines but site energy use increases:				_____ MMBtu

AGENCY COMPILATION WORKSHEET (EXAMPLE)				
Name of Project	Annual Source Energy Base Case	Annual Source Energy Saved	Annual Site Energy Base Case	Annual Site Energy Increase
1) Water Heater Retrofit	475MMBtu	95MMBtu	128MMBtu	105MMBtu
2) 25 Water Heaters Replaced	11,875MMBtu	2,375MMBtu	3,200MMBtu	2,625MMBtu
3) 15 Water Heaters Replaced	7,125MMBtu	1,425MMBtu	1,920MMBtu	1,575MMBtu
Total	19,475MMBtu	3,895MMBtu	5,248MMBtu	4,305MMBtu
Total Source Energy Percentage Decrease from Base Case:			20%	
(Total Annual Site Energy Base Case × Source Energy Percentage Decrease) Site Energy Reduction Credit:				1,050MMBtu
(Total Annual Site Energy Increase + Site Energy Reduction Credit) Goal Credit for projects where source energy use declines but site energy use increases:				5,355MMBtu

In this example, 5,355 million Btu would be subtracted from the agency's total site-delivered energy use before that figure is divided by the agency's square footage. Thus, the agency is not penalized for the actual site energy increase and receives a additional reduction credit.